CLIMATE CHANGE, DISASTER RISKS AND ENVIRONMENTAL DEGRADATION

SITUATION OF CHILDREN IN THE PHILIPPINES REPORT



Publication Date

2023

Reports available at situationofchildren.org/latest-evidence

Situation of Children Reports provide in-depth analyses of child rights issues in the Philippines to help facilitate informed decision-making in child welfare and rights, covering areas like health, education, and protection. To view interactive dashboards and access the latest data, please visit www.situationofchildren.org

and environr

The Philippines is particularly at risk of the effects of climate change, including rising sea levels, the increasing numbers and ferocity of typhoons and other natural extreme events and disasters, the impacts of different kinds of pollution.

Climate change, disasters, and the destruction of natural environment and resources have direct and indirect impacts on people, families, and communities but especially on the more vulnerable — the children, the elderly, and persons with disability, among others.



Children are easily the most affected by climate and environmental shocks because they are more physically and physiologically vulnerable than everyone else and are more at risk of death from diseases brought about by climate change.

Children are easily the most affected by climate and environmental shocks because they are more physically and physiologically vulnerable than everyone else and are more at risk of death from diseases brought about by climate change. Extreme and continuously rising temperatures, severe weather conditions, and other natural hazards make it more challenging for children to survive, live, and thrive and for them to realize their full potential.

A UNICEF 2021 report, "A climate crisis is a child rights crisis: Introducing the Children's Climate Risk Index", ranks the Philippines 31st among 163 countries with the highest Children's Climate Risk Index (CCRI). The CCRI is a new framework that measures risk for children across countries and regions based on 57 factors across two central pillars: Pillar 1 – Exposure to climate and environmental hazards, shocks and stresses and Pillar 2 – Child vulnerability. While the Philippines ranks low in the child vulnerability pillar — child health and nutrition, education, WASH, and poverty, communication assets, and social protection, the country is in the top 4 countries on exposure to severe climate and environmental factors affecting children.

Mainstreaming children in local climate risk planning is key to ensuring that the specific needs of children and their caregivers, especially those that are more exposed to climate and environmental hazards, are appropriately addressed and the impacts of climate change effectively managed. While a large majority of LGUs in the country have institutionalized disaster risk reduction and management plans and mechanisms, more work is needed to make sure that these plans and mechanisms are informed from a child rights perspective.

Child Rights Situation Analysis

There is a wide scope and variety of recommended indicators on climate change. However, there is limited source if there exists one at all for many of those indicators. The indicators currently available for this subdimension pertain to the number of natural events and disasters that have occurred in the country; affected persons and families, including missing and injured persons, and deaths attributed to disasters; families with disaster preparedness kits; and the proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies.

The number of people directly affected by disasters in 2022 reached 11,304 per 100,000 population. It is lower than that for 2021 when 18,457 per 100,00 people were directly affected, the highest since 2016. There were 15 major natural extreme events and disasters in the country that left a trail of affected population and properties in 2022. Most notable were Typhoon Storm Agaton/Megi, Super Typhoon Karding/Noru, and Typhoon Paeng/Nalgae. In actual numbers, major natural extreme events and disasters that occurred in 2022 directly affected 3 million families with 11.7 million people and caused 458 deaths and a score of injured and missing persons.

The spike in directly affected population in 2021 was significantly due to Typhoon Odette/Rai, which impacted the south-eastern part of the Philippines in December 2021 and affected nearly 8 million people. There were an average of 15 major natural extreme events and disaster that occurred annually in the country since 2012.

In terms of disaster risk reduction and management, four regions are found to have 100 per cent of their LGUs adopting and implementing local disaster risk reduction strategies in line with the national strategies. MIMAROPA, Regions XI and XII, and Caraga were reported to have all of their LGUs adopting and implementing nationally-aligned DRR strategies. Other regions with 90 per cent and above of LGUs are NCR, and Regions III, VII, IX, and X. Notably, Region VI and BARMM had less than half of their LGUs with DRR strategies in 2022, with 42.4 per cent and 48 per cent, respectively.

While BARMM's status has improved from 13 per cent in 2021, Region VI registered a huge drop from 100 per cent in 2021. It must be highlighted that Region V, which lies along the typhoon belt and among the most vulnerable to severe weather events, only have 53.3 per cent of LGUs with DRR strategies consistent with national strategies in 2022, even lower than the previous year's of 56.7 per cent.

At the household level, only a few are ready with at least basic emergency supplies. On average, only between one and two in every ten families or 14.8 per cent had ready disaster preparedness kits in 2020. Families in BARMM came most prepared with 36.9 per cent of them with preparedness kits ready, followed by those in Region I with 24 per cent and Region IX with 22.4 per cent. Regions II, X and XII had the lowest proportion of families with disaster preparedness kits. Most families, about 70 per cent on average, had flashlights and medical items in their disaster preparedness kits; 50.6 per cent of families packed in food; and 48.7 per cent tucked in clothes.

Only 31.8 per cent of families included water, about the same percentage of families, 32.4 per cent, putting in matches/lighter. There is not much difference between urban and rural families in their disaster preparedness kits. The most common items among urban families were medical kit, flashlight, important documents, and matches/lighters.

Among rural families, the top items were flashlights, medical kit, clothes, and matches/lighters.



Equity & Risk

	EQUITY	
Gender	Data under this subdimension is not disaggregated sufficiently to conduct equity analysis.	
Disability	Data under this subdimension is not disaggregated sufficiently to conduct equity analysis.	
Subnational	Certain regions - in particular BARMM, Region II and Region V - may be more at risk of climate-related crises and disasters. They have the lowest proportions of local governments which adopt and implement local disaster risk reduction strategies (13 per cent, 55.1 per cent and 56.7 per cent respectively). This could put those residing in BARMM, Region II and Region V at greater risk of the harmful effects of severe climate events.	
RISKS		

 Climate change and severe weather events will pose a risk to WASH infrastructure, damaging that which has been built and meaning that future infrastructure plans may soon not be climate-resilient. WASH infrastructure is already fundamentally lacking in some areas of the Philippines, and building basic infrastructure, as climate resilient as possible, should be prioritized.

> When DRR drills occur in schools, it is a common occurrence that children with disabilities are excluded. Therefore, they do not know what they should do in the event of a natural hazard or conflict emergency and have no process or guidance in place to support them. As a result, there is insufficient DRR planning in place for children with disabilities. The National Youth Commission and SKs are seeking to resolve this in some instances through their DRR focal persons.

> Similarly, there are concerns regarding the ability of agencies to support the deaf community during emergencies and disaster-related events, an issue which can particularly come to the fore following Typhoon Haiyan.
> Since then, it has been recommended that deaf organizations and those supporting deaf people, including local DRRM teams, be trained to develop hazard maps for members of the deaf community, and disaster response protocols.



	• The harsh circumstances that children engaged in child labor experience present a significant danger to their well-being and safety. They face risks from exposure to chemicals, biological factors and environmental hazards. When the environmental conditions they are already exposed to are substandard, climate-related events and associated geological dangers could worsen the situation further.
	• It is anticipated that there will be an increase in-migration towards areas that are less susceptible to hazards or offer better economic prospects. This trend is driven by the intensification of disasters caused by climate change. As a result, a larger number of people, particularly children, will be impacted by these adverse circumstances, leading to associated nutritional, health, protection and educational development challenges.
	• Human-induced hazard: The development of urban sprawl in areas such as the Manila metro area (one-third of residents live in informal settlements) poses a variety of problems relating to environmental degradation. These areas are extremely flood prone and the ability of the government and those living in informal settlements in coastal urban areas to mitigate the threats posed by flooding and disease is extremely limited.
Conflict No o	conflict-related risks were identified as yet under this subdimension.
Health Crisis/Pandemic	• This is increased risk of disease where there is improper waste management. This is a well-documented risk globally, and is relevant to the Philippines' context in areas where there are limited WASH capacities and infrastructure, and high prevalence of open defecation. This has knock-on impacts for rights realization under other child rights fields, like health and nutrition.
	• Environmental degradation and pollution creates risks to health in the Philippines , particularly with regard to air pollution in highly urbanized regions like the NCR and CAR.
	• There is also a risk of increased susceptibility to climate-sensitive diseases. For example, higher temperatures can lead to a surge in diseases surge as dengue, malaria, cholera and typhoid. In 1998, when the Philippines experienced the strongest El Nino phenomenon to-date, almost 40,000 dengue cases, 1,200 cholera cases and nearly 1,000 typhoid fever cases, were recorded nationwide.



Legislation & Policy Analysis

The Philippines' Climate Change Act was passed in 2009, creating the Climate Change Commission (CCC) as the lead policymaking body in the Philippines tasked to coordinate, monitor and evaluate the government's programs and action plans relating to climate change.

It was amended in 2012, establishing the People's Survival Fund as an annual fund intended for local government units and accredited local organizations to implement climate change adaptation projects. The government earmarked PHP 1 billion for this fund, to be sourced from the national budget. Additional national strategy documents relating to climate change include the National Framework Strategy on Climate Change (2010–2022) and the National Climate Change Action Plan (2011–2028). The former envisions a climate risk-resilient Philippines, while the latter assesses the current situation of the country with regard to climate change risk and outlines plans for adaptation and mitigation.

Republic Act 9275, also known as the Clean Water Act was enacted in 2004. "The law aims to protect the country's water bodies from pollution from land-based sources and by penalizing acts of polluting them." It also allows for the provision of multi-sectoral governing boards to oversee the management of water quality in rivers and other local water resources. Similarly, Republic Act 8749, also known as the Clean Air Act of 1999, aims to create "a holistic national programme of air pollution management and encourage cooperation and self-regulation among citizens and industries through market-based instruments."

In January 2001, Republic Act 9003 also known as the Ecological Solid Waste Management Act of 2000 was passed. The act mandated the creation of an "ecological waste management programme, creating the necessary institutional mechanisms and incentives, declaring certain acts prohibited and providing penalties." The act provides the necessary policy framework, institutional mechanisms and mandates to LGUs with the provision of resources to establish "material recovery facilities (MRFs) in all barangays as a support system for establishing an integrated SWM system based on 3Rs (reduce, reuse and recycle)." The act also prohibits the practice of open dumping and advises LGUs to convert such sites into sanitary landfills.

Republic Act No.6969 also known as the 'Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990' was passed in 1990. The act regulates / restricts / prohibits the "importation, manufacture, processing, sale, distribution, use and disposal of chemical substances and mixtures presenting risk and/or injury to human and animal health or to the environment." It also prevents the entry or transit of hazardous or nuclear materials through the Philippines. Finally, the act encourages research and studies on the impacts of toxic chemicals.

Regarding greening and environmental restoration, Republic Act 10176, also known as the Arbor Day Act of 2012 was passed in 2012. The Act mandated for the revival of a National Arbor Day in the Philippines and authorized LGUs to observe the day as an annual tree planting event. In addition, environmental restoration is further supported by the Enhanced National Greening Programme. The programme "by the DENR - Forest Management Bureau aims to reforest the estimated 7.1 million hectares of unproductive, denuded and degraded forest lands through the participation and investment of the private sector towards enabling private companies to achieve carbon neutrality."



The Office for Civil Defense (OCD) currently plays a key role in the coordination and development of DRR plans, monitoring and evaluation. It is developing a results-based monitoring system - the Disaster Management System - to be introduced in 2023, which will include Disaster Risk Reduction and Management focal persons to manage DRR responses. In addition, the Department of Social Welfare and Development (DSWD), has, in support of Republic Act 10821, enacted the Comprehensive Emergency Program for Children "which prioritizes the safety and protection of children before, during and after disasters and emergencies."

Finally, Republic Act 1012, also known as Philippine Disaster Risk Reduction and Management Act of 2010, aims to strengthen "the Philippine disaster risk reduction and management system, providing for the national disaster risk reduction and management framework and institutionalizing the national disaster risk reduction management plan."

Internationally, the Philippines has been active in committing to climate change mitigation-related targets, including revising up its target to cut greenhouse gas emissions to a 75 per cent reduction by 2030, revised up from the target of 70 per cent it set in 2016. Young people have been active in the Philippines' international climate negotiations.

Bottleneck Analysis

Demand	No demand-side bottlenecks could be determined for this subdimension.
Supply	 COVID-19 and limited capacities create delays in updating DRR plans, particularly in BARMM and other regions vulnerable to disasters. In the BARMM, a reduction in the number of LGUs with DRR plans in place has been recorded in recent years. This is likely due to COVID-19 diverting capacities and time of LGU administrative and DRR capacities elsewhere, which has meant that there have been delays in updating plans, reviewing and certifying them and checks in the extent and effectiveness of their implementation. It is also reported that many BARMM LGUs may not have the technical capacities to create effective DRR plans or are not reporting that they have them in place. This was noted to be a bottleneck to DRR planning nationwide, with the quality of DRR noted to vary significantly at municipality and
\bigcirc	 Limited use of existing monitoring guidelines. Moreover, it should be noted that there is reportedly limited use of Gawad Kalasag guidelines to assess DRR systems.
Enabling environment	• Limited standardization of DRR management, particularly at barangay and municipal level. Across the Philippines' regions and the different levels of government, there is limited standardization of DRR strategies, practices and management. This is a particular challenge at lower administrative levels (like the provincial and municipal). This makes it



harder to effectively manage and respond to disaster risks, meaning that some administrative regions of the Philippines will be much better prepared than others.

• Inter-agency DRR task force not yet created. There are plans to create an inter-agency task force to monitor and support the development of DRR plans at the national level, including actors like the DILG and the Department of National Defense. However, the legal mandate for this task force is not yet in place.

9 | www.situationofchildren.org



References

- 1. DepEd. (2018). Wash in Schools: Three Star Approach. P.4.
- 2. Official Gazette. (2023). Executive Order No. 22.
- 3. WHO & UNICEF. (n.d.). JMP WASH Data: Philippines.
- 4. DepEd. (2021). Compliance of all crucial indicators [WASH in Schools].
- 5. WHO. (2018). Health-care waste.
- 6. UNICEF. (2019). Menstruation is OK: from taboo to acceptance.
- 7. Situation Analysis of Child Rights. Validation Workshop. In-person. Manila. June 2023.

The information presented in this report reflects the analyses and findings of the researchers and does not necessarily represent the views of the United Nations Children's Fund (UNICEF), the Council for the Welfare of Children (CWC), the National Economic and Development Authority (NEDA), or their collaborating organizations. Although efforts have been made to ensure the accuracy and reliability of the data, this report primarily utilizes publicly available information, which may not fully encapsulate all aspects of children's situations in the Philippines.

The collaborating organizations do not assure the completeness or accuracy of the data included in these reports and accept no responsibility for any consequences stemming from their usage. The inclusion or mention of specific entities, research findings, or approaches in the reports does not constitute endorsement or preference by the collaborating organizations. Furthermore, references to specific geographic or administrative regions, or the use of the term "country," are intended solely for analytical purposes and do not indicate any position on the legal status, governance, or territorial integrity of such regions.